

REMARKS/ARGUMENTS

Claims 1 to 34 are currently pending.

Claims 1, 14, 20 and 32 to 34 are independent.

Claims 7, 9 to 10, 16, 18 to 19, 25 and 27 to 28 are allowed or allowable.

Allowed and Allowable Claims

The Applicants would like to thank the EXAMINER for indicating that Claims 7, 9 to 10, 16, 18, 25 and 27 to 28 would be allowable if rewritten in independent form including all limitations of the base claim and any intervening claims and for indicating Claim 19 is allowable subject matter.

Section 103 Rejections

The EXAMINER rejects Claims 1 to 6, 8, 11 to 15, 17, 20 to 24, 26 and 29 to 34 under 35 U.S.C. section 103 as being unpatentable over U.S. Patent No. 6,523,102 (Dye) in view of U.S. Patent No. 5,481,701 (Chambers). To reject claims 1 to 6, 8, 11 to 15, 17, 20 to 24, 26 and 29 to 34, the EXAMINER acknowledges that the Dye patent "does not teach replacing the first data within the compressed data band with the second data without decompressing the third data." (Office Action, page 2, lines 29-30). The EXAMINER states the Chambers patent teaches decompressing a portion of a compressed data file instead of the entire compressed data file when an access request is issued to a compressed file. (Office Action, page 3, lines 1-5). However, Claim 1 recites "initiating an update routine for replacing first data stored within the cache with second data, wherein a first section of a compressed data band stored in the cache includes the first data and a second section of the compressed data band includes third data" and "replacing the first data within the compressed data band with the second data without decompressing

the third data." Claims 14, 20 and 32 to 34 recite similar limitations. According to Applicants' specification, "When an update is made to the cache memory 112, it is generally not efficient to decompress and recompress an entire cache line (e.g., all 256 kbytes of a data band) when the update is only to a section of data for the cache line. The present invention overcomes such inefficiencies by updating only a portion of a cache line/data band during update routines such as the first update routine (e.g., the portion of the cache line/data band in which data is to change) as described below." (Application, page 33, lines 21-29) (emphasis added). In contrast, the Chambers patent does not appear to decompress a portion of a compressed data file instead of the entire compressed data file when an access request to change data is issued to a compressed file. More specifically, the Chambers patent decompresses the entire file for write requests.

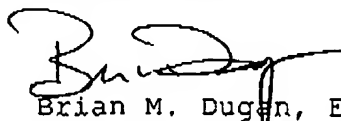
According to the Chambers patent, while describing a file-open request in a File Putback Mode, "the putback means issues a request for the operating system to open a putback file of this decompressed size, in the same location. Then, operation continues at block 610, where the decompressor decompresses the entire data file into the putback file, as seen in FIG. 8B." (Chambers, col. 8, lines 51-55) (emphasis added). Further, while describing a data write request in the File Putback Mode, the Chambers patent states, "the putback means issues a request for the operating system to write the indicated data to the decompressed putback file, rather than to the compressed data file as originally indicated by the application's request." (Chambers, col. 8, line 64 to col. 9, line 1). As stated above, the decompressor decompresses the entire data file into the putback file, and thus, the Chambers patent appears to decompress the entire file for write requests. Therefore, the Chambers patent does not teach or suggest "replacing the first data within

the compressed data band with the second data without decompressing the third data" as required by Claims 1, 14, 20 and 32 to 34. Consequently, neither the Dye patent nor the Chambers patent, either alone or in combination, teaches or suggests "replacing the first data within the compressed data band with the second data without decompressing the third data" as required by independent claims 1, 14, 20 and 32 to 34. For at least the above reasons, the Applicants respectfully submit that Claims 1, 14, 20 and 32 to 34, and Claims 2 to 6, 8, 11 to 13, 15, 17, 21 to 24, 26 and 29 to 31, which depend therefrom, are allowable.

Further, according to the Chambers patent, "FIG. 1 shows the present invention as embodied in a computer system 100 having a storage system 102, a memory system 104, and a central processing unit (CPU) 106 coupled together by a bus 108. The storage system may, for example, be a hard disk drive. The memory system may, for example, be random access memory (RAM). These may also be characterized as permanent and temporary storage, respectively." (Chambers, col. 3, lines 19-26) (emphasis added). The Chambers patent states, "FIG. 1 shows that, at a highest level of abstraction, the present invention may be characterized as an apparatus and method for decompressing only a requested portion 110 of a compressed data file 112 from the storage system to RAM." (Col. 3, lines 37-40) (emphasis added). Therefore, the Chambers patent decompresses data from a permanent storage (e.g., the storage system). In contrast, the present invention "provides methods and apparatus for updating data in a compressed read cache memory." (Application, page 6, lines 20-21) (emphasis added). Therefore, the Applicants respectfully submit there is no motivation or suggestion in either the Dye or Chambers patent to combine the patents. Accordingly, the Applicants respectfully submit that Claims 1, 14, 20 and 32 to 34, and Claims 2 to 6, 8, 11 to 13, 15, 17, 21 to 24, 26 and 29 to 31, which depend therefrom, are allowable.

For the above reasons, the Applicants believe the claims are in condition for allowance, and respectfully request reconsideration and allowance of the same. The Applicants do not believe any other fees are due regarding this Amendment. If any fees are required, however, please charge Deposit Account No. 04-1696. The Applicants encourage the EXAMINER to telephone the Applicants' attorney should any issues remain.

Respectfully Submitted,



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